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DESCRIPTIONS OF NEW SPECIES OF MARINE SHELLS INHABITING THE SOUTH SEA ISLANDS.

BY ANDREW GARRETT.

RISSOINA SUPRACOSTATA, Garr., pl. 2, fig. 1.

Shell elongate-oblong, sub-cylindrical, thin, sub-pellucid, white or corneous; spire turreted, long, acute; embryonal whorls 3, smooth; normal whorls 7, convex, upper ones swollen above, the first four with small longitudinal slightly oblique ribs; whole surface with regular crowded delicate raised striæ; suture deeply impressed; aperture oblique, rather large, subovate, about one-third the length of the shell; peristome somewhat dilated, margined by an external flat varix which curves upward over the umbilical region; columella and parietal region covered with a thin callus.

Length 10 mill.

Hab. Viti Isles. (Coll. Phil. Acad. Nat. Sciences.)

A rare species of which we found fifteen examples in the upper region of the laminarian zone. It belongs to the same group with *R. Cumingii* and *R. tenuistriata*. It differs from the former in its smaller size, more swollen whorls, and stouter varix behind the outer lip. *Cumingii* has the longitudinal ribs cut by spiral grooves.

RISSOINA SCULPTILIS, Garr., pl. 2, fig. 2.

Shell elongate-ovate, solid, shining, white; spire long, gradually tapering from the body; whorls 9?, convex, latticed with longitudinal and transverse ribs, nodose at their points of intersection; transverse ribs three on each whorl of the spire, five on the body whorl, and their interstices crossed by very fine striæ; suture deeply impressed; aperture rather large, oblique, sub-ovate; peristome thick, somewhat dilated; externally ridged at the basal sinus; columella and parietal region with a rather thick deposit of callus.

Length $8\frac{1}{2}$ mill.*Hab.* Viti Isles. (Coll. Garrett.)

A very rare and beautiful species, of which we found but a single specimen, very perfect except loss of apex. Its coarse latticed surface will readily distinguish it.

RISSOINA MILLECOSTATA, Garr., pl. 2, fig. 3.

Shell elongate-oblong, sub-cylindrical, rather thin, white; spire long, convex, apex acute, the upper whorls tapering more rapidly than the lower ones; whorls 11, flatly convex, closely striated with transverse elevated lines, longitudinally ribbed; ribs small, numerous, closely set, slightly oblique, gradually becoming obsolete toward the lower part of the whorls; suture deeply incised; aperture sub-ovate, nearly vertical, about a third the length of the shell; peristome thick, slightly sinuous above; basal sinus rather indistinct; columella and parietal region with a thin callus.

Length 9 mill.

Hab. Viti Isles. (Coll. Garrett.)

Only a solitary but perfect example found. Its most obvious character is its numerous ribs, transverse lines, and absence of the external rib to the outer lip.

RISSOINA ORYZA, Garr., pl. 2, fig. 4.

Shell small, oblong-ovate, solid, smooth, shining, white; spire moderately elevated, rather rapidly tapering, apex obtuse; whorls 6-7, flatly convex, the last one rather large, slightly compressed beneath; suture faintly impressed and broadly margined beneath; aperture rather large, oblique, sub-ovate; peristome thick, dilated; columella oblique.

Length 2 mill.

Hab. Viti Isles. (Coll. Garrett.)

Three examples found in beach sand at Kiva Island. It belongs to the same group with *R. curta* and *R. semiplicata*.

RISSOINA HORRIDA, Garr., pl. 2, fig. 5.

Shell small, elongate-oblong, thick, vitreous, white; spire rather long, gradually tapering from the body whorl, apex obtuse; whorls 7, longitudinally ribbed, ribs large, closely set, slightly oblique, crossed by equally large spiral ridges, two on the whorls of the spire, and four on the short body whorl, their points of intersection acutely papillose; the deep interstices with elevated transverse striæ; suture deeply incised and crenulate; aperture sub-ovate, about one-fourth the length of the shell; peristome very thick, somewhat five angled.

Length 3 mill.

Hab. Viti Isles. (Coll. Garrett.)

A very rare species remarkable for its bold sculpturing.

RISSOINA SCABA, Garr., pl. 2, fig. 6.

Shell elongate-oblong, solid, vitreous, shining, white; spire rather long, turreted, gradually tapering from the body whorl, apex obtuse; whorls 8, flatly convex, the last short and rounded, longitudinally ribbed; ribs small, rather close, compressed, slightly oblique, crossed by numerous small transverse ridges, forming granules at their points of intersection; suture deeply excavated; base obliquely grooved and ridged; aperture small, oval, oblique, and the basal sinus large; peristome very thick, margined with a stout external varix; columella oblique concave.

Length 4 mill.

Hab. Viti Isles. (Coll. Garrett.)

We obtained a single example at the above location and one at the Samoa Isles.

RISSOINA COSTATOGRAVOSA, Garr., pl. 2, fig. 7.

Shell small, elongate-oblong, solid, shining, ashy-white; spire long, gradually tapering from the body whorl, apex obtuse; whorls 9, convex, the last one rounded, longitudinally granosely ribbed; ribs rather small, closely set, slightly oblique, flexuous on the last whorl, and transversely grooved; suture deeply impressed; aperture oblique, sub-ovate, two-sevenths the length of the shell; peristome thick, finely crenulate, somewhat dilated.

Length 5 mill.

Hab. Viti Isles. (Coll. Phil. Acad. Nat. Sciences.)

Five specimens found under clumps of coral on reefs. It belongs to the same group with *R. Cerithiopsis*, Pse.

RISSOINA GRACILIS, Garr., pl. 2, fig. 8.

Shell small, elongate, slender, cylindrically tapering, rather thick, somewhat shining, light-brown; spire long, sub-acute; whorls 9, convex, last one short, rounded, longitudinally ribbed; ribs rather large, closely set, as wide as their interstices, slightly oblique, and flexuous on the last part of the body whorl; suture margined beneath; aperture small, sub-oval, nearly vertical; peristome thick, sinuous above and beneath; columella concave and callous.

Length 3 mill.

Hab. Viti Isles. (Coll. Garrett.)

A beautiful slender species belonging to the group of which *Rissoina ambigua*, Gl., may be considered as the type. *R. gracilis* also occurs at the Society Isles.

RISSOINA DEBILIS, Garr., pl. 2, fig. 9.

Shell elongate, slender, white; spire long, rapidly tapering from the body whorl; whorls 8, convex, the last one rounded, longitudinally ribbed; ribs small, slightly oblique, rounded, flexuous on the body whorl; interstices transversely striated with fine raised lines, which are larger and continuous at the base; suture deeply impressed; aperture oblique, sub-oval, about two-sevenths the length of the shell; peristome much thickened externally.

Length $4\frac{1}{2}$ mill.

Hab. Viti Isles. (Coll. Garrett.)

A very rare species found under clumps of coral on reefs.

RISSOINA AFFINIS, Garr., pl. 2, fig. 10.

Shell elongate-oblong, rather solid, smooth, shining, white; spire moderately elevated, obtuse, somewhat rapidly tapering; whorls 7-8, convex, the last one large, swollen, slightly compressed; suture linear; aperture large, oblique, ovate, one-third the length of the shell; peristome very thick, dilated, sinuous above and beneath; columella and parietal region callous.

Length 5 mill.

Hab. Viti Isles. (Coll. Garrett.)

A rare species belonging to the same group with *R. curta*, *tridentata* and *oryza*.

RISSOINA TEREBRA, Garr., pl. 2, fig. 11.

Shell solid, elongate, subulate, ashy-white, with or without a revolving brown band; spire long, acute, tapering from the body whorl; embryonal whorls 2, smooth, normal whorls 10, convex, longitudinally strongly ribbed; ribs slightly oblique, angular, 12-13 in the penultimate whorl; interstices with minute crowded raised transverse striæ, which are most conspicuous towards the base; suture deeply impressed; aperture small, oblong-oval, oblique, less than a fourth the length of the shell; peristome trenchant on its edge, externally strongly varicose; columella and parietal region with a white callus.

Length $8\frac{1}{2}$ mill.

Hab. Viti and Samoa Isles. (Coll. Phil. Acad. Nat. Sciences.)

A rare species of which we found four examples under clumps of coral on reefs.

Rissoina turrita, Garr., pl. 2, fig. 12.

Shell oblong-ovate, solid, white, spire moderately elevated, turreted; whorls 10, plain, irregularly increasing, all except the body strongly tabulate, the angle sharp, and excepting the three last whorls, strongly ribbed longitudinally; ribs rounded, the same width as their interstices, and the whole surface with small close spiral elevated lines and grooves; aperture oblique, ovate, about one-third the length of the shell; peristome thick, slightly expanded, crenulate within; columella and parietal region with a rather thick deposit of callus.

Length 7 mill.

Hab. Society Isles. (Coll. Garrett.)

A very rare species found under clumps of coral on the outer reefs.

Vitrinella pura, Garr., pl. 2, fig. 13.

Shell small, depressed orbicular, rather thin, smooth, shining white, with faint microscopical radiating lines of growth; spire depressly conoid; whorls 4, flatly convex, rapidly and regularly increasing, last one large, rounded, slightly deflected in front, and somewhat angular near the umbilicus; suture channelled; umbilicus deep funnel-shaped, spirally grooved, nearly one-third the greatest diameter of the shell; aperture circular, oblique; peristome rather thick, nearly continuous.

Diam. Greatest 2, height 1 mill.

Hab. Viti Isles. (Coll. Phil. Acad. Nat. Sciences.)

We found about thirty examples of this species in beach sand at Kiva Island. It is probably the first species recorded from the South Sea Islands.

Vitrinella liricincta, Garr., pl. 2, fig. 14.

Shell small, depressed orbicular, shining, hyaline, white, spire but little elevated; whorls 4, convex, regularly and rapidly increasing, last one large, rounded, girdled with 9-11 ridges, which are most crowded beneath and remote above; suture linear; umbilicus large, deep, perspective, freely showing the whorls, spirally ridged a little more than a third the greatest diameter of the shell; aperture circular, diagonal; peristome nearly continuous.

Diam. Greatest $1\frac{1}{2}$, height $\frac{2}{3}$ mill.

Hab. Viti Isles. (Coll. Phil. Acad. Nat. Sciences.)

About seventy specimens of this beautiful species were gathered from the beach sand at Kiva Island.

VITRINELLA SCULPTILIS, Garr., pl. 2, fig. 15.

Shell depressly orbicular, whitish, rather thick, spire broadly and depressly conical; whorls 5, tabulate, regularly and rapidly increasing, last one very large, rounded, girdled with eight prominent ribs, the second one on the shoulder crenulate, all narrower than their interstices, excepting those on the base, which are more closely set; the crenulate and the upper plain ridge ascending the whorls of the spire; the concave interstices with crowded oblique raised striæ; suture margined by the upper ridge; umbilicus deep, exhibiting the volutions, margined by the last rib, striated with coarse oblique raised lines, and about one-third the greatest diameter of the shell; aperture circular, diagonal; peristome thick, united by a callus.

Diam. Greatest $4\frac{1}{2}$, height 3 mill.

Hab. Viti Isles. (Coll. Phil. Acad. Nat. Sciences.)

An elegantly sculptured species of which we found twenty examples on a sandy mud flat on the north coast of Natawa Bay, Vanna Levu.

VITRINELLA CÆLATA, Garr., pl. 2, fig. 16.

Shell small, depressly orbicular, vitreous, shining, sub-pellucid, white, spire depressly conoid; whorls $3\frac{1}{2}$ angular, last one trigonal, angles slightly carinate, crossed by small closely-set rounded slightly flexuous ribs; umbilicus small, pervious; aperture diagonal, rounded; peristome thick, continuous.

Diam. Greatest 2, height 1 mill.

Hab. Viti Isles. (Coll. Garrett.)

A very rare and beautiful species, of which we found four examples in beach sand at Kiva Island.

VITRINELLA NODOSA, Garr., pl. 2, fig. 17.

Shell small, discoid, white, spire flat; whorls $3\frac{1}{2}$, convex, rapidly and regularly increasing, last one rounded, sub-trigonal, transversely nodose, crossed by crowded thin elevated striæ; umbilicus large, crenulate, freely exposing the whorls; aperture oblique, rounded; peristome nearly continuous.

Diam. Greatest 2, height $\frac{1}{2}$ mill.

Hab. Viti Isles. (Coll. Garrett.)

One perfect and two imperfect examples found.

CHELETROPIS CRENILABRIS, Garr., pl. 2, fig. 18.

Shell minute. ovate, thin, fragile, pellucid, shining, corneous; spire rather widely conical, a little more than half the length of the shell, apex rather obtuse; whorls 5, slightly convex, the first two with very fine oblique raised lines, the last one large, swollen; suture faintly impressed; aperture broadly oval, strongly effuse at the base; peristome thickened, ribbed externally, and the lower half crenulate on the edge; columella slightly callous and somewhat twisted.

Length 2 mill.

Hab. Paumotus Seas. (Coll. Garrett.)

Two perfect examples of this pelagic species were found on the sands at the Paumotus Islands. It differs from the figure and description of *C. Huxleyi*, Forbes.

? RISSOA VITREA, Garr., pl. 2, fig. 19.

Shell minute, ovate, thin, pellucid, smooth, shining, white; spire conical, obtuse; whorls 5, strongly convex, last one large, rounded; suture well impressed, margined; aperture sub-circular, nearly one-third the length of the shell; peristome rather thick.

Length $1\frac{1}{2}$ mill.

Hab. Viti Isles. (Coll. Phil. Acad. Nat. Sciences.)

Not uncommon in beach sand at Kiva Island.

? RISSOA LITTORINÆFORMIS, Garr., pl. 2, fig. 20.

Shell small, ovate, smooth, shining, pellucid, white; spire conical, obtuse; whorls $5\frac{1}{2}$, strongly convex, last one very large, rounded; suture deeply impressed, slightly margined; aperture sub-circular, nearly one-third the length of the shell; peristome rather thick.

Length, 2 mill.

Hab. Viti Isles. (Coll. Garrett.)

Two examples found with the preceding species, to which it is closely allied.

RISSOA INFRASTRICTA, Garr., pl. 2 fig. 21.

Shell small, oblong, thick, shining, white, spire rather long, obtuse; whorls 5, strongly convex, constricted at the base, and slightly so next the suture, longitudinally ribbed, ribs large, abruptly terminating at the basal stricture; aperture roundly ovate one-third the length of the shell; peristome thick, with an external rib.

Length 2 mill.

Hab. Viti Isles. (Coll. Garrett.)

A single specimen found with the two preceding species.

? *Rissoa INFRATINCTA*, Garr., pl. 2, fig. 22.

Shell small, elongate, turreted, rather thin, sub-pellucid, shining, ashy-white, with a brown tinge at the base; spire long, acute; whorls 8, rounded, clathrate with longitudinal and smaller revolving ribs; suture deeply impressed; aperture small, sub-ovate, about one-fourth the length of the shell; peristome thin, with a slight angle at its union with the arched columella.

Length $2\frac{1}{2}$ mill.

Hab. Viti Isles, Samoa Isles. (Coll. Garrett.)

A few examples occurred under stones near low-water mark. The general aspect of the shell is like some of the small species of *Bittium*.

Rissoa VENUSTA, Garr., pl. 2, fig. 23.

Shell small, elongate-ovate, solid, vitreous, shining white; whorls 7? convex, spirally ridged, ridges large, crenulate, compressed, five on the body whorl, the upper two continued up the spire, the interstices latticed with small compressed ribs; suture deeply impressed, margined; aperture oval, slightly oblique, one-third the length of the shell; peristome very thick, externally ribbed, margins united by a callosity; columella and parietal region arched.

Length $3\frac{1}{2}$ mill.

Hab. Viti Isles. (Coll. Garrett.)

A very rare species, remarkable for the beauty of its sculpturing.

? *Rissoa CRYSTALLINA*, Garr., pl. 2, fig. 24.

Shell small, ovate, thin, sub-pellucid, vitreous, shining, white; spire conical, obtuse; whorls 5, convex, last one very large, rounded, longitudinally ribbed; ribs small, slightly oblique, evanescent on the lower part of the body whorl, the whole surface with smaller spiral ridges; suture deeply impressed; aperture sub-circular, vertical, slightly angulate above, a little more than a third the length of the shell; peristome thickened; columella arched, callous.

Length 2 mill.

Hab. Viti Isles. (Coll. Phil. Acad. Nat. Sciences.)

A few examples picked up on the sandy beaches at Kiva Island.

? *Rissoa hyalina*, Garr., pl. 2, fig. 25.

Shell elongate-oblong, sub-cylindrical, thin, hyaline, shining, white; spire long, obtuse; whorls 6-7, convex, with very fine crowded revolving raised striæ, crossed by more delicate lines of growth; suture deeply impressed; aperture roundly-ovate, vertical, one-third the length of the shell; peristome rather thick, slightly expanded at the base, margins united by a callosity; columella arched.

Length 6 mill.

Hab. Samoa, Viti, and Paumotus Isles. (Coll. Phil. Acad. Nat. Sciences.)

A very rare and beautiful species of which we found eight examples at the above groups of islands.

Rissoa truncata, Garr., pl. 2, fig. 26.

Shell small, oblong, thin, cylindrical, pellucid, shining, white; spire moderately long, apex truncate; whorls 5, convex, the three last of nearly equal width, with fine crowded raised revolving striæ; suture deeply impressed; aperture roundly-ovate, vertical, little less than one-third the length of the shell; peristome thick, slightly expanded, margins united by a callosity; columella arched.

Length 2 mill.

Hab. Viti Isles. (Coll. Garrett.)

We found five examples of this species in beach sand at Kiva Island. It is closely allied to the preceding species, but differs in size, coarser striæ, more truncate apex, and less tapering spire.

Volvaria (Volvarina) pygmæa, Garr., pl. 2, fig. 27.

Shell very small, ovate, smooth, glossy, white; spire depressly conoid; aperture narrow, linear; peristome abbreviately lyrate within, and slightly everted towards the base; columella with 4-5 plaits.

Length $2\frac{1}{2}$ mill.

Hab. Viti Isles. (Coll. Phil. Acad. Nat. Sciences.)

Not uncommon in the condition of beach-worn specimens.

Drillia vidualoides, Garr., pl. 2, fig. 28.

Shell sub-claviform, solid, spire long, acute, ashy-white, lower half of the last whorl chestnut-brown; whorls 7-8, concave beneath the suture, girdled with a revolving row of large oblong nodules, about eight on each whorl; aperture oval, varied with white and

chestnut-brown, about one-third the length of the shell; canal very short, wide and truncate; sinus large, deep, and rounded; peristome sharp, arched, and slightly sinuous near the base; columella smooth, callous, and a wart-like callosity next the sinus.

Length 10 mill.

Hab. Viti Isles. (Coll. Phil. Acad. Nat. Sciences.)

An abundant species living on masses of dead coral in the lower region of the littoral zone. It closely resembles *D. vidua*, Rve., which we also collected both at the Viti, and at Wallis Island, and were invariably found on weedy ground, most generally buried in sandy mud. Our species has the nodules on the body whorl less acute, and *vidua* has the base of the shell more or less whitish and there is always a row of granules on the lower half of this body whorl.

DRILLIA PAPILLOSA, Garr., pl. 2, fig. 29.

Shell small, elongate-oblong, solid, spire moderately elevated, yellowish-white; whorls 8, convex, constricted beneath the suture, spirally granulose; granules rather large, three rows on the whorls of the spire, the lower one obsolete; base contracted, spirally ridged and produced into a short, obtuse, open canal; aperture sub-ovate, small, nearly a third the length of the shell; posterior sinus large, deep, and rounded; peristome rather acute, slightly sinuous near the base; columella smooth, callous, nearly vertical.

Length 6 mill.

Hab. Viti Isles. (Coll. Garrett.)

Only a single but perfect example of this small species was found.

DRILLIA MINUTISSIMA, Garr., pl. 2, fig. 30.

Shell minute, elongate ovate, solid, spire rather short, light-brown; whorls 6, spirally granulated, granules rather large, closely set, disposed in two rows on the whorls of the spire, the lower one the larger; base contracted, spirally ridged; aperture ovate, deep-brown, one-third the length of the shell; posterior sinus large, circular, margins nearly united; peristome rather sharp and strongly arched; columella smooth, nearly vertical.

Length 2 mill.

Hab. Viti Isles. (Coll. Garrett.)

Two perfect specimens were found under clumps of coral on reefs.

DRILLIA PUSILLA, Garr., pl. 2, fig. 31.

Shell small, oblong, sub-fusiform, solid, slightly shining, ashy-white, the lower portion of the whorls grayish-brown; spire rather long, convex in outline, apex sub-acute; whorls 6-7, convex, slightly constricted beneath the suture, last one contracted at the base and furnished with a stout varix on the right side; longitudinally ribbed, ribs small, slightly oblique, somewhat flexuous, sub-angular, slightly nodulous next the suture, about 15 on the whorls of the spire; base spirally ridged and grooved; canal short, rather widely open, truncate; aperture light-brown, oblong oval, about one-third the length of the shell; sinus large, rounded; peristome rather sharp, furnished with a small sinus near the base.

Length 7 mill.

Hab. Viti Isles, Cook's Isles, Paumotus Isles. (Coll. Phil. Acad. Nat. Sciences.)

Several examples found under stones on the inner reefs. It differs from *D. pygmæa*, Dkr., found at the former location, in its more slender form, longer spire, and is more distinctly constricted beneath the suture.

CLATHURELLA PULCHELLA, Garr., pl. 3, fig. 32.

Shell small, oblong ovate, solid, slightly shining, violaceous, or pinky-red, with a narrow white band; spire moderate, sub-turreted, convex in outline, apex sub-acute; whorls nuclear 3, smooth, normal whorls 5-6, convex, longitudinally ribbed, ribs rather large, rounded, slightly oblique, 11-13 on the body whorl, crossed by numerous spiral elevated lines; suture deeply impressed; aperture elongate, narrow, slightly flexuous, nearly half the length of the shell; peristome thick, 5-6 toothed within; sinus rounded; columella depressed, smooth.

Length 5 mill.

Hab. Viti Isles. (Coll. Phil. Acad. Nat. Sciences.)

A very beautiful species found lurking under stones on the fringing reefs. It belongs to the same group with *C. rugosa*, *violacea* and *maculosa*.

CLATHURELLA DÆDALEA, Garr., pl. 2, fig. 33.

Shell elongate, solid, slightly glossy, yellowish-white, maculated with small irregular chestnut-brown spots, mostly confined to the ribs; spire long, turreted, apex acute; whorls embryonal 3, brown,

normal whorls 7, tabulate above, convex, last one produced into a short open slightly recurved canal; longitudinally ribbed, ribs small, compressed, rounded, slightly oblique, 13-14 on the body whorl, crossed by small, revolving elevated lines, forming granules where they intersect the ribs; aperture oblong, sub-rhomboid; posterior sinus very deep, ovate; peristome strongly varicose externally, rather acute, crenulate, and abbreviately lyrate within; columella faintly rugose with oblique wrinkles, nearly vertical, and together with the parietal region thinly callous.

Length 8 mill.

Hab. Viti Isles. (Coll. Garrett.)

A very rare and beautiful species found on the outer reefs.

CLATHURELLA CÆLATA, Garr., pl. 2, fig. 34.

Shell small, oblong, fusiform, rapidly tapering towards the base, spire moderately elevated, apex acute; whorls embryonal 2, brown, normal whorls 6, rounded, last one produced into a short, slightly recurved canal; longitudinally nodosely ribbed, 10 on the body whorl, crossed by smaller revolving ridges, 3 on the penultimate whorls, 10-11 on the body, interstices scabrous with close, elevated longitudinal striæ; suture deeply impressed; aperture oblong, narrow, sides nearly parallel, half the length of the shell; posterior sinus large, rounded; peristome trenchant, obsoletely crenulate, with 5 stout teeth on its inner edge; columella nearly vertical, smooth; color cinereous, stained with luteous, nodules whitish and obsoletely lineated in the spiral grooves.

Length 6 mill.

Hab. Viti Isles. (Coll. Garrett.)

A rare and beautifully sculptured species of which we found two living specimens on the outer reefs.

CLATHURELLA INFRASULCATA, Garr., pl. 2, fig. 35.

Shell solid, oblong, turreted, spire rather long, yellowish-gray; whorls 6-7, convex, roundly shouldered above, longitudinally ribbed; ribs rounded, 10 on the body whorl, crossed by closely-set small transverse ridges; base obliquely sulcate, the grooves crossed by the longitudinal ribs; canal short, broad truncate; aperture oblong, sub-rhomboid, nearly one-third the length of the shell; peristome with a stout external rib, abbreviately lyrate along the inner edge; posterior sinus large, deeper than broad; columella smooth.

Length 7 mill.

Hab. Viti Isles. (Coll. Garrett.)

A rare species remarkable for the deep sulcate base.

CLATHURELLA OBESA, Garr., pl. 2, fig. 36.

Shell oblong, fusiform, spire moderately elevated, turreted, apex acute, base contracted, pale luteous; whorls 7, convex, the last one ventricose, tabulate above, longitudinally ribbed; ribs small, prominent, rounded, 16 on the body whorl, crossed by numerous small transverse ridges, of which there are five on the penultimate whorl; aperture elongate oblong, slightly flexuous, half the length of the shell; the posterior sinus large, sub-ovate; peristome faintly crenulate, labiate and eight-toothed within; columella rugose with oblique ridges.

Length 9 mill.

Hab. Viti Isles. (Coll. Garrett.)

A very rare species closely allied to *C. lutea*, Pse., from which it may be distinguished by its stouter ribs, more robust form, more distinctly tabulated whorls, and longer aperture.

CLATHURELLA SEMILINEATA, Garr., pl. 2, fig. 37.

Shell small, oblong, sub-fusiform, slightly shining, cinereous, with four or five transverse brown lines on the upper whorls and three near the base; spire rather long, acute, base much contracted; nuclear whorls 3, wrinkled, brown, normal whorls 5-6, flatly convex, longitudinally ribbed; ribs rather stout, rounded, transversely nodose, 12 on the body whorl, interstices with small transverse ridges which form the nodules on the ribs; aperture elongate oblong, narrow sides nearly parallel, about a third the length of the shell; posterior sinus large, rounded; peristome with 6-7 teeth on the inner edge.

Length 5 mill.

Hab. Samoa and Viti Isles. (Coll. Garrett.)

We found ten examples of this pretty species under clumps of coral on the outer reefs. Its most obvious character is the two groups of lineations, which are constant. It belongs to the group represented by *C. felina*, Hds. and *C. violacea*, Pse.

CLATHURELLA PINGUIS, Garr., pl. 2, fig. 38.

Shell small, ovate, fusiform, solid, base contracted, spire short, rose-red with a single revolving white band; nuclear whorls 2,

white, smooth, normal five, rounded, longitudinally ribbed; ribs large, rounded, wider than their interstices, ten on the body whorl, crossed by small revolving ridges, which form transverse nodules in mounting over the ribs; aperture elongate, linear, slightly flexuous, about half the length of the shell; posterior sinus large, rounded; peristome thick, finely crenulate, slightly involute, the inner margins with 5-6 closely-set teeth; columella smooth.

Length 4 mill.

Hab. Samoa and Viti Isles. (Coll. Garrett.)

A very rare species, of which we obtained a single example at each of the two above localities.

CLATHURELLA PUNCTIFERA, Garr., pl. 2, fig. 39.

Shell small, elongate-oblong, thick, base contracted, spire long, acute, sides convex, cinereous, dotted with light-brown, the dots disposed in regular series on the ribs; nuclear whorls 3, light-brown, obliquely plicate-striated; normal whorls 5-6, flatly convex, longitudinally ribbed, ribs small, rounded, narrower than their interstices, 10-11 on the body whorl, crossed by smaller transverse ridges, four on the penultimate whorl; aperture oblong, narrow, a little more than a third the length of the shell; posterior sinus rather large, semicircular; peristome externally varicose, slightly involute, crenulate, and the inner margin with six teeth; columella smooth, callous.

Length 5 mill.

Hab. Society, Samoa, and Viti Isles. (Coll. Garrett.)

We obtained a few examples of this species on the outer reefs. It belongs to the same group as *C. pumila*, *violacea*, and *felina*, which some of the European conchologists refer to the sub-genus *Crassispira*, of the genus *Drillia*.

CITHARA MELANOSTOMA, Garr., pl. 2, fig. 40.

Shell elongate-oblong, rather solid, base contracted, cinereous or whitish, with a brown-black columella, and most generally with a transverse row of linear dots between the ribs on the body-whorl; spire long, turreted, sub-acute; whorls 5-6, obliquely tabulate above, prominent at the angle, longitudinally ribbed; ribs large, remote, compressed, descending from the suture, 5-6 on the body whorl, interspaces concave, smooth; aperture elongate-oblong, nearly a third the length of the shell; base produced into a short, open, truncate canal, and the posterior sinus large, deep, semi-cir-

cular; peristome sharp, slightly involute, simple; columella and parietal region smooth, callous.

Length 10 mill.

Hab. Viti Isles. (Coll. Phil. Acad. Nat. Sciences.)

We gathered about forty examples of this remarkable species on the sandy beaches at Kiva Island. It probably inhabits deep water. It may be easily known by its dark columella, simple lips, large sinus, and turreted spire.

CITHARA ABBREVIATA, Garr., pl. 3, fig. 41.

Shell small, abbreviate, sub-rhomboidal, solid, white; spire short, pyramidal, outline flattened, apex sub-acute; whorls 7, flat, the last very large, ventricose, depressed beneath the suture, sub-angulated on the shoulder and rapidly tapering to the base; surface cancellated by small close longitudinal ribs and five transverse raised lines; aperture narrow, sub-elliptical, a little more than half the length of the shell; sinus semicircular; peristome trenchant, stoutly ribbed externally, and the inner margin callous; columella slightly concave, smooth, thinly callous.

Length 5 mill.

Hab. Paumotus Isles. (Coll. Garrett.)

A very rare species. Its most obvious character is its short subrhomboid contour, short body, and cancellated surface.

ODOSTOMIA DENSECOSTATA, Garr., pl. 3, fig. 42.

Shell small, oblong, thin, sub-pellucid, somewhat glossy, cinereous; spire long, gradually tapering from the body whorl, slightly convex in outline, apex sub-acute; whorls 7, convex, longitudinally ribbed, ribs small, smooth, closely set, rounded, slightly constricted next the suture; interstices with closely-set transverse impressed striæ; suture deeply impressed; aperture vertical, ovate, angular above, about one-fourth the length of the shell; peristome thin; columella callous, arched, and the fold stout.

Length 4 mill.

Hab. Samoa and Viti Isles. (Coll. Phil. Acad. Nat. Sciences.)

Not uncommon under stones on reefs.

ODOSTOMIA EXILIS, Garr., pl. 3, fig. 43.

Shell small, elongate subulate, fragile, pellucid, shining, white; spire long, gradually tapering from the body whorl, apex sub-acute; whorls 6-8, convex, longitudinally finely striated; suture

well impressed; aperture sub-vertical, ovate, one-fourth the length of the shell; peristome acute; columella fold small.

Length 4 mill.

Hab. Viti Isles. (Coll. Phil. Acad. Nat. Sciences.)

A very delicate species of which we found seven examples in beach sand. It is closely allied to *O. striata*, Pse., but differs in its smaller size, and absence of the fine spiral striæ.

ODOSTOMIA DENSESTRIATA, Garr., pl. 3, fig. 44.

Shell elongate, subulate, thin, pellucid, shining, white; spire very long, gradually tapering, apex acute; whorls 11, flatly convex, spirally striated with fine crowded raised lines, crossed by more delicate lines of growth; suture impressed; aperture sub-vertical, sub-ovate, nearly one-sixth the length of the shell; peristome thin, sinuous, slightly expanded at the base; columella thinly callous, slightly reflexed, and the plait rather small.

Length 9 mill.

Hab. Viti Isles. (Coll. Phil. Acad. Nat. Sciences.)

An elegant species of which we found several examples on weedy ground in the lower region of the littoral zone. It also occurs at the Samoa Islands. The general aspect of the shell is much like *O. debilis*, Pse., which has a less number of whorls, and differs in color.

ODOSTOMIA ORYZA, Garr., pl. 3, fig. 45.

Shell small, elongate-ovate, thin, smooth, glossy, white; spire moderately elevated, convex in outline, apex obtuse; whorls 7, flatly convex; suture faintly impressed, broadly margined beneath; aperture acutely ovate, one-fourth the length of the shell; peristome simple; columella concave, slightly callous, and the plait rather small.

Length $3\frac{1}{2}$ mill.

Hab. Viti Isles. (Coll. Garrett.)

Only two specimens obtained from beach sand at Kiva Island.

ODOSTOMIA SULCATA, Garr., pl. 3, fig. 46.

Shell rather solid, elongate, subulate, sub-pellucid, shining, white; spire very long, sides flattened in outline, base rimate; whorls 12? (apex fractured; whorls remaining 10) plain, the last one short, rounded, all vertically grooved, grooves rather large, closely set, concave, wider than their interstices, gradually dis-

appearing on the back of the body whorl; suture deeply impressed; aperture ovate, slightly oblique; peristome rather sharp, straight, somewhat thickened at the base; columella concave, reflexed, with a stout plait, and together with the parietal region callous.

Length $8\frac{1}{2}$ mill.

Hab. Viti Isles. (Coll. Garrett.)

One example found perfect except loss of apex. The sulcations do not quite extend to the sutural line, nor descend more than half way down the length of the body whorl. The whorls are very short, and appear as if pressed into each other from above.

ODOSTOMIA AMANDA, Garr., pl. 3, fig. 47.

Shell small, elongate-oblong, rather thin, sub-pellucid, somewhat shining, cinereous; spire long, gradually tapering from the body whorl, apex obtuse; whorls 7, convex, longitudinally ribbed, ribs small, smooth, rounded, constricted beneath the suture, forming a row of granules; interstices concave, the same width as the ribs, and transversely impressly striated; suture deeply impressed and crenulate; aperture sub-ovate, acutely angular above, nearly a fourth the length of shell; peristome thin, straight; columella simple.

Length 3 mill.

Hab. Viti Isles. (Coll. Garrett.)

One perfect example found on weedy ground in the middle region of the littoral zone. It is well characterized by its delicate sculpturing and the absence of the usual columella fold. The last character, though negative, will scarcely remove it from the genus, as the nuclear whorls are sinistral. It is closely allied to *O. dense-costata*, Nob., but is much smaller, more slender, the spire longer, and the ribs more decidedly constricted beneath the suture.

ODOSTOMIA PULCHRA, Garr., pl. 3, fig. 48.

Shell elongate, slender, thin, slightly shining, white; spire long, turreted, regularly tapering from the body whorl, apex obtuse, base slightly produced; whorls 7, convex, shouldered above, longitudinally ribbed; ribs small, remote, angularly rounded, narrower than their interstices, which latter are concave, minutely and closely ridged transversely; suture deeply impressed; aperture oblong oval, slightly oblique, nearly a fifth the length of the

shell; peristome thin; columella arched, slightly callous, and the plait small and very oblique.

Length $4\frac{1}{2}$ mill.

Hab. Viti Isles. (Coll. Garrett.)

A single perfect and an immature example found washed up on the sands. It may be distinguished by its shouldered whorls, distant ribs, and hyaline structure.

ODOSTOMIA CRYSTALLINA, Garr., pl. 3, fig. 49.

Shell elongate, subulate, rather thick, sub-pellucid, smooth, shining white; spire long, outlines slightly convex, apex acute; whorls 11-12, nearly plain, last one short, rounded, cancellated with microscopical longitudinal and transverse striæ; suture impressed; aperture vertical, broad ovate, acutely angular above, rounded below, about one-fifth the length of the shell; peristome thin, simple; columella arched, callous, and the plait stout.

Length $7\frac{1}{2}$ mill.

Hab. Viti Isles. (Coll. Garrett.)

Two perfect examples found on a sandy mud-flat. Deep in the throat may be observed several exceedingly delicate revolving lamellæ, which, as seen through the sub-pellucid shell, look like engraved lines.

ODOSTOMIA LUTEA, Garr., pl. 3, fig. 50.

Shell elongate, subulate, smooth; shining, luteous-yellow; spire long, the upper half tapering more rapidly than the lower; apex acute; whorls 9-10, flatly convex, last one sub-angulate near the base, obsoletely striated by lines of growth; suture impressed and margined beneath; aperture widely ovate, about one-fourth the length of the shell; peristome thin, nearly straight, obsoletely angulated at the base; columella slightly callous, somewhat reflexed so as to form a slight umbilical fissure, and distinctly plaited.

Length 7 mill.

Hab. Viti Isles. (Coll. Garrett.)

Three examples found on a sandy mud-flat.

ODOSTOMIA OBELISCUS, Garr., pl. 3, fig. 51.

Shell elongate, subulate, thin, hyaline, white; spire long, flattened in outline, apex acute; whorls 10, plano-convex, the last one short, rounded, decussated by microscopical longitudinal

lines and transverse impressed striæ; suture linear, margined; aperture broadly ovate, vertical, acutely angular above, nearly a fourth the length of the shell; peristome sharp, slightly sinuous; columella thinly callous, slightly concave, somewhat reflexed, and the plait rather small.

Length $6\frac{1}{2}$ mill.

Hab. Viti Isles. (Coll. Garrett.)

We found three examples of this thin, hyaline species on weedy ground in the lower region of the littoral zone.

ODOSTOMIA VITREA, Garr., pl. 3, fig. 52.

Shell elongate, subulate, thin, vitreous, smooth, shining, pellucid, white; spire very long, regularly tapering from the body whorl, apex acute, base slightly produced, whorls 11, nearly plain; last one rounded, faintly striated by lines of growth; suture linear and rather widely margined beneath; aperture, ovate, acutely angular above, with revolving thin lamellæ deep in the throat, which, as seen through the transparent shell appear like revolving lines; peristome thin, straight, slightly expanded at the base; columella concave, callous, slightly reflexed, forming a small umbilical fissure, and the spiral fold stout; parietal region thinly callous.

Length $7\frac{1}{2}$ mill.

Hab. Viti Isles. (Coll. Garrett.)

Only a solitary specimen found; but quite distinct from *O. obeliscus*, Nob., which it resembles. The latter has no internal spiral lamellæ, and is impressly striated transversely.

ODOSTOMIA UNILINEATA, Garr., pl. 3, fig. 53.

Shell slender, elongate, subulate, smooth, shining, sub-pellucid, white, with a revolving yellowish-brown line just above the suture; spire very long, cylindrically tapering; whorls 10-11? (apex fractured; whorls remaining 9) plano-convex, last one slightly produced at the base, under the lens rudely striated with lines of growth; suture deeply impressed; aperture oblique, ovate, acutely angular above, lyrate within, lyræ very delicate, several in number, revolving in the interior of the shell; peristome thin, simple; columella concave, slightly reflexed, and the revolving fold stout.

Length $10\frac{1}{2}$ mill.

Hab. Viti Isles. (Coll. Garrett.)

Only a single example of this fine species was found. It may

be compared with *O. aciculina*, Sowr., from New Caledonia. As compared with the description and figure our shell is longer, more slender, the spire more plain in outline, the base less produced, and has one line less.

ODOSTOMIA CUSPIDATA, Garr., pl. 3, fig. 54.

Shell elongate, subulate, slender, smooth, shining, creamy-white, with a microscopical articulate darker line on the middle of the whorls; spire very long, cylindrically tapering, apex obtuse; whorls 13-15, plano-convex, the last one stout, rounded, rudely striated by lines of growth; suture deeply impressed; aperture broadly ovate, angulate above, about one-seventh the length of the shell; deep in the throat may be seen several revolving fine lamellæ; peristome thin, slightly expanded at the base; columella callous, reflexed so as to form a slight umbilical fissure, and the spiral fold stout.

Length 11 mill.

Hab. Viti Isles. (Coll. Garrett.)

We found three perfect examples of this fine species on weedy ground in the middle region of the littoral zone.

Genus **RISSOPSIS**, Garr.

Shell small, thin, elongate, cylindrical; apex truncate; aperture sub-ovate, angular above, entire; peristome rather thin, somewhat expanded; columella oblique, arched.

RISSOPSIS TYPICA, Garr. pl. 3, fig. 55.

Shell small, elongate, slender, thin, hyaline, glossy, smooth, white; spire long, cylindrical, slightly tapering, sides nearly plain, apex truncate; whorls 6, flat; suture faintly impressed, margined; aperture vertical, ovate-triangular, nearly one-third the length of the shell; peristome rather thin, sinuous, somewhat expanded; columella obliquely arched, slightly callous.

Length 10 mill.

Hab. Viti and Samoa Isles. (Coll. Garrett.)

We found three specimens of this delicate transparent shell on the outer reefs.

OBELISCUS HYALINUS, Garr. pl. 3, fig. 56.

Shell small, elongate-oblong, sub-cylindrical, thin, smooth, hyaline, white; spire long, turreted, the upper whorls tapering more

rapidly than the lower, apex acute, base slightly produced; whorls 9, convex, the last one rounded, under the lens minutely striated by lines of growth and very fine close revolving impressed lines; suture deeply impressed and margined beneath; aperture slightly oblique, rhomboid-luniform, about one-third the length of the shell; peristome rather thin, straight; columella slightly callous, with two oblique plaits.

Length 10 mill.

Hab. Paumotu and Society Isles. (Coll. Garrett.)

A very rare species of which we found a single example at each of the above-mentioned locations.

NASSA ANTHRACINA, Garr., pl. 3, fig. 57.

Shell small, oblong-ovate, solid, shining, black or deep blackish-brown, with a transverse light-brown line on the upper half of the body whorl; spire rather long, apex sub-acute; whorls embryonal 3, smooth, amber color, normal whorls 4-5, convex, with fine revolving impressed lines; aperture sub-oval, little more than one-third the length of the shell; peristome rather thick, straight, externally varicose, inner margin with 5-6 oblong teeth; columella arched, callous, with a small oblique plait next to the basal sinus; parietal region with a small ridge.

Length 7 mill.

Hab. Viti Isles. (Coll. Garrett.)

We found only two examples of this species, both obtained on weedy bottom near low-water mark. The pale line is most conspicuous in the aperture.

DAPHNELLA FUSIFORMIS, Garr., pl. 3, fig. 58.

Shell oblong, fusiform, rather solid, white, faintly tinged with yellowish-brown; spire acutely conical, half the length of the shell; whorls embryonal 3, rugose, brownish-horn color; normal whorls 6, convexly angular, last one very large, swollen, much contracted and produced at the base; longitudinally ribbed, ribs small, closely set, rounded, becoming obsolete on the body whorl, which latter exhibits several periodical varices; whole surface with numerous small unequal-sized, more or less crenulate revolving ridges; aperture elliptically oval, half the length of the shell; peristome thick, finely crenulate, arched, sinus small; columella smooth and polished.

Length 8 mill.

Hab. Paumotus Isles. (Coll. Garrett.)

A very rare species, remarkable for its fusiform outline, and attenuated base.

DAPHNELLA MILLEGRANA, Garr., pl. 3, fig. 59.

Shell elongate-oblong, sub-fusiform, moderately thick, slightly shining, white with short transverse ferruginous lines and dots; spire rather long, conical, convex in outline, apex sub-acute; whorls embryonal 3, smooth, dark corneous, whorls normal 5, convex, last one large, contracted at the base; whole surface decussated by crowded small longitudinal and spiral elevated lines, granulated at their points of intersection; aperture large, elliptically oblong, contracted above, a little more than half the length of the shell; peristome moderately thick, delicately crenulate, and the sinus large and deep; columella concave.

Length 9 mill.

Hab. Paumotus Isles. (Coll. Garrett.)

A very rare and beautiful species characterized by its narrow elliptical form and delicate clathrate sculpturing.

DAPHNELLA VITREA, Garr., pl. 3, fig. 60.

Shell small, elongate, thin, vitreous, sub-pellucid, shining, white; spire long, turreted, acutely conical, apex acute; whorls embryonal 3, rugose, brownish, normal whorls 8, convex, angulately shouldered above, last one contracted at the base into a short open canal; whole surface with fine rugose elevated spiral lines, most conspicuous on the upper whorls, which are longitudinally ribbed; each whorl with two periodical varices; aperture oblong, oval, about a third the length of the shell; peristome rather sharp, finely crenulate, margined externally by a small varix; columella simple; posterior sinus large and very deep.

Length 8 mill.

Hab. Paumotus Isles. (Coll. Garrett.)

A very rare species well characterized by its vitreous structure, revolving lines, and remote varices. It belongs to the same group as *D. Boholensis* and *lactea*.

DAPHNELLA TESSELLATA, Garr., pl. 3, fig. 61.

Shell elongate, sub-fusiform, rather thin, slightly shining, white, tessellated with small sub-quadrangular ferruginous spots disposed in transverse rows, 3 on the body and 1 on each whorl of

the spire; spire moderately elevated, acutely conical; whorls embryonal 3, light-brown, wrinkled, normal whorls 4-5, convex, last one rather long, tapering at the base; whole surface decussated by fine crowded longitudinal and transverse elevated lines, which are minutely granulated at their points of intersection; aperture narrow elliptical, nearly half the length of the shell; sinus large and deep; peristome rather thick, finely crenulate, and slightly sinuous near the base; columella smooth, nearly vertical.

Length 10 mill.

Hab. Paumotus Isles. (Coll. Phil. Acad. Nat. Sciences.)

We found about a dozen examples of this species washed up on the beaches, all of which have the peculiar tessellations. In shape and sculpturing it closely resembles *D. millegrana*, but is more contracted at the base.